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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,487	09/29/2005	Karsten Eichhorn	68897-011	3671

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HUSCH & EPPENBERGER, LLC  
190 CARONDELET PLAZA  
SUITE 600  
ST. LOUIS, MO 63105-3441

EXAMINER
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SHALLENBERGER, JULIE A

ART UNIT	PAPER NUMBER
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2885

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/18/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/551,487

Applicant(s)

EICHHORN ET AL.

Examiner

Julie A. Shallenberger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-15 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

The amendment filed 11/17/06 has been entered.

### ***Drawings***

The drawings are objected to because the drawings do not clearly show the applicants claimed invention. Each drawing appears to show pieces of the claimed invention but they do not clearly show how the pieces all fit together. An isometric view of all the elements and their relationships to one another (for each embodiment) is suggested in order to clearly illustrate the claimed invention. Also, the extents claimed in 11-15 are not shown or defined as elements in the drawings.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheets should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the

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examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claim 1 line 10 recites "the edges" which lacks antecedent basis.

Claim 11 lines 9-10 recite "said perimeter of said luminous panel" which lacks antecedent basis.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The first and second "extents" as recited in claims 11 and 15 are not mentioned in the specification or shown in the drawings.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Line 9 of claim 11 recites "said edge of said housing". There is insufficient antecedent basis for this claim limitation.

Lines 9 and 10 of claim 11 recite "said perimeter of said luminous panel". There is insufficient antecedent basis for this claim limitation.

It is also unclear how an edge has two portions. These two portions are not defined in the specification or the drawings.

An art rejection has not been made on the claims at this time in view of the *In re Steele, Mills and Leis* decision, 134 USPQ 292 which states:

*Considerable speculation as to meaning of terms employed and assumptions as to scope of claims were made by assumptions as basis for rejection under 35 U.S.C. § 103; court is in a quandary as to what is covered by claims; substantial confusion as to interpretation of claims arose and has continued invention as required by 35 U.S. C. § 112; rejection is reversed because it is based on unsupported speculative assumptions; this is not to be construed as meaning that court considers claims to be patentable as presently drawn; claims should be reviewed to insure compliance with 35 U.S. C. § 112.*

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsukamoto (2003/0189835).

Tsukamoto teaches a headlamp for a vehicle comprising a planar luminous panel with a bottom side 33 (figure 4), a plurality of luminous element chips 1-5 arranged in a recess of casing 31a which has trough-like edge portions (figures 2-4) which run peripherally in a path perpendicularly to the light emission of the panel and stand up from the bottom side of the recess, and optical element 35 in the beam path to produce a predetermined luminous intensity distribution [0027].

In regard to claim 10, Tsukamoto teaches a planer luminous panel 33 which is integrated in a luminous plate 18, and a recess being set in a front side (figures 2 and 4) of luminous plate 33, and the front side running perpendicularly to the direction of light emission (figure 1).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto.

Considered in a different manner, Tsukamoto teaches a headlamp for a vehicle comprising a planar luminous panel with a bottom side 33 (figure 4), a plurality of luminous element chips 1-5 arranged in a recess of casing 31a which has trough-like edge portions (figures 2-4) which run peripherally in a path perpendicularly to the light emission of the panel and stand up from the bottom side of the recess, and optical elements 11-15 arranged in the light path of the light emitted from each diode.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make optical elements 11-15 in the form of one lens (optical element) that covers all of diodes 1-5 in order to reduce the cost of manufacturing.

In regard to claim 10, Tsukamoto teaches a planer luminous panel 33 which is integrated in a luminous plate 18, and a recess being set in a front side (figures 2 and 4) of luminous plate 33, and the front side running perpendicularly to the direction of light emission (figure 1).

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto in view of Wang (2004/0164675).

Tsukamoto teaches the invention described above, but lacks the teaching of a light converting luminescent cast material to convert the luminous chips to white light, and a reflective coating on the bottom side of the recess.

Wang teaches [0016] a light-converting fluorescent coating 16, which covers diode 10 (figure 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Tsukamoto's headlamp with Wang's teaching of a color converting material in order to produce white light.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto in view of Wang (2003/0213969).

Tsukamoto teaches the invention described above, but lacks the teaching of a a reflective coating on the bottom side of the recess containing the diode.

Wang teaches a reflective coating on the bottom of a substrate which supports a light emitting diode [0009].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the headlamp taught by Tsukamoto with the reflective coating taught by Wang in order to direct more light forward from the light emitting diode.



### ***Response to Arguments***

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., an edge in spaced relation between light sources wherein the edge affects a luminosity gradient or a light/dark boundary of the light passing part the edge) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The claim recites "*the edge being in spatial arrangement to the luminous-element chip such that a predetermined luminance gradient in a light distribution of the headlamp is formed in the region of the edges*".

In response to applicant's arguments that Tsukamoto failed to disclose individually, or suggest in combination, "*the edge being in spatial arrangement to the luminous-element chip such that a predetermined luminance gradient in a light distribution of the headlamp is formed in the region of the edges*" the applicant is respectfully advised that while the claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination. During examination, the claims must be interpreted as broadly as their terms reasonably allow. *In re American Academy of Science Tech Center*, 70 USPQ2d 1827 (Fed. Cir. May 13, 2004). In this case, the edge 31a is in spatial arrangement to the luminous chips 1-5 and the luminous gradient in the light distribution of the headlamp is formed (according to the

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arrangement of the chips) within the region of the edges. Whether the cylindrical holders intercept the light beams or not, is moot because the claim does not say that the edges limit the light distribution to be contained within the region of the edges. The claim merely states that the light distribution of the headlamp is formed in the region of the edges. Therefore, Tsukamoto meets the claimed limitations.

The examiner recognizes that the inventions are different, however, the claims are so broadly written that the differences are not claimed and during examination the claims must be interpreted as broadly as their terms reasonably allow.

The examiner would also like to note that the source of some issues may be due to translation differences.

#### ***Allowable Subject Matter***

Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to show or teach in combination a headlight as claimed in 1, further comprising an edge wall or edge of a recess with a triangular, rectangular, or circular shape in a top view and a break in the edge for forming an asymmetrical light-dark boundary.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chunk (2002/0136013), Hou (2004/0114392), Chinniah (5,681,1040), Runfola (6,601,983), and Martineau (2002/0105801) teach relevant lighting structures.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action (claims 10-15). Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie A. Shallenberger whose telephone number is (571)272-7131. The examiner can normally be reached on Monday - Friday 830-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Lee can be reached on 571-272-7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Julie Shallenberger  
Examiner 2885



**JONG-SUK (JAMES) LEE**  
**SUPERVISORY PATENT EXAMINER**